

WHAT IS CLAIMED IS:

1. A method for transitioning between digital video streams, the method comprising:
5 serving a first video stream with a packet identifier (PID) value;
 transitioning in an immediate and smooth manner to a second video stream
 having the same PID value; and
 serving the second video stream.
- 10 2. The method of claim 1, wherein transitioning in an immediate and
 smooth manner comprises transitioning without an unsynchronized delay at a beginning
 of the second video stream.
- 15 3. The method of claim 1, wherein transitioning in an immediate and
 smooth manner comprises transitioning without an unstable period at an end of the first
 video stream.
- 20 4. The method of claim 1, wherein transitioning in an immediate and
 smooth manner comprises transitioning without an unsynchronized delay at a beginning
 of the second video stream and without an unstable period at an end of the first video
 stream.
- 25 5. A method for transitioning between digital video streams, the method
 comprising:
 serving a first video stream;
 transitioning to a transition point in a second video stream;
 marking a discontinuity indicator in a packet located at the transition point; and
 serving the second video stream from the transition point onwards, wherein the
30 packet located at the transition point comprises a clock reference value.
- 30 6. The method of claim 5, further comprising:
 predetermining transition points in the video streams.

7. The method of claim 5, wherein the transition point comprises a beginning of a stripe section of a storage drive in a storage array.

5 8. The method of claim 5, where the method is performed by a video server.

9. The method of claim 5, where the method is performed at a cable distribution headend.

10 10. A method for transitioning between digital video streams, the method comprising:

transmitting a first video stream;
transitioning from the first video stream to a second video stream;
determining shifts needed to be applied to timing information in the second
video stream in order to generate recalculated timing information;
15 replacing the timing information in the second video stream with the
recalculated timing information; and
transmitting the second video stream.

20 11. The method of claim 10, wherein the timing information includes decode
and presentation time stamps.

12. The method of claim 10, wherein the timing information includes clock
reference values.

25 13. The method of claim 10, where the method is performed at a distribution
headend.

14. The method of claim 10, where the method is performed at a remote hub
of a distribution system.

30 15. A method for transitioning between digital video streams, the method
comprising:

transmitting packets of a first video stream;

receiving a signal to transition from the first video stream to a second video stream;

removing packets of the first video stream, and transmitting picture repeat packets in substitute therefor; and

5 transmitting packets of the second video stream.

16. The method of claim 15, where the picture repeat packets comprise zero motion vectors.

10 17. The method of claim 15, further comprising:
after receiving the signal and before removing packets, transmitting packets of the first video stream until a first packet comprising a reference picture.

15 18. The method of claim 17, where removing packets begins with the first packet comprising the reference picture.

19. The method of claim 15, where the method is performed at a distribution headend.

20 20. The method of claim 15, where the method is performed at a remote hub of a distribution system.